

# North Avenue Streetscaping Vision

## Recommendations and Alternatives

### Vision and Goals

North Avenue, from the Milwaukee River to Lake Michigan, is a central commercial corridor on the East Side of Milwaukee. This segment of North Avenue is also one of the **top Crash Corridors** identified in the 2019 Milwaukee Pedestrian Plan and is one of the city's **top 10 corridors in the High Injury Network**. This document envisions a future for North Avenue located east of the Milwaukee River. The following recommendations will significantly improve traffic safety and are endorsed by the Eastside Business Improvement District (BID). This vision is broad and high-level. Several alternatives are supported which improve traffic safety along the corridor in line with the City's Vision Zero commitment and Complete Streets policy. Additional BID goals for future corridor redesign include enhanced placemaking, comfortable bicycling and micro-mobility experience, and increased commercial activity and development.

The vision recommended below assumes minimal changes made to the existing traffic configuration (e.g. the preservation of existing turning lanes, transit configuration, lane widths, direction of travel, etc.). Beyond this vision, multiple other alternatives are recommended, though additional study is needed to assess the feasibility. For instance, the removal of turning lanes could yield an additional 11 feet of right-of-way for implementing various improvements. Additional study could impact the alternatives outlined in this document.

#### *Goals:*

- Improve pedestrian and cyclist safety along North Avenue and across the East Side.
- Provide a long-term vision for North Avenue as a Complete Street that is accessible and safe for all users.
- Accommodate diversity in the visitors of North Avenue by maintaining access to parking, public transportation, bicycling, micro-mobility, and accessible pedestrian infrastructure.
- Beautify and enhance the appearance and experience for all users of North Avenue with natural and artistic improvements.
- Bolster economic development.
- Increase connectivity to the East Side from other parts of the City.

### Recommendations

The following recommendations have been discussed with the City of Milwaukee and are acceptable to the BID. Some recommendations include alternatives which represent trade-offs between benefits to safety and the public realm. These trade-offs are discussed, and the BID's preferences are described below to anticipate multiple possible future configurations of North Avenue east of the Milwaukee River.

#### Recommendation #1: Parking Protected Bike Lanes

The City of Milwaukee has pursued parking protected bike lanes in some locations across the City, including Kilbourn Avenue in downtown. This configuration entails a parking lane separating traffic from the bike lane and sidewalk. On North Avenue, there is only space for a parking protected bike lane on one side of the street within the existing 50-foot curb-to-curb width. The opposite side of the street may include a protected and/or buffered bike lane with 3 feet between the bicycle lane and traffic. This alternative necessitates the removal of parking on one side of the street, resulting in an overall net loss of

on-street parking within the project area (approximately 12 spaces). The parking protected bike lane is envisioned for the north side of the street, which would maximize the number of parking spaces retained and overall access to parking options; however, placement on the south side of the street may become more feasible based on future conditions and is also acceptable.

- **Safety and Travel Speeds:** By placing the parking lane closer to general traffic flow; friction is increased for motorists who are more constrained, thereby decreasing the speed motorists feel comfortable travelling. Opposite the parking lane, a protected bicycle lane with a 3 foot buffer will similarly constrain travel lanes.
- **Pedestrian Experience:** Presently, pedestrians are buffered from traffic with 8 feet of on-street parking and 5 feet of bicycle lanes, totaling 13 feet on each side. A parking protected bike lane would increase this distance to 18 feet. On the opposite side, the protected and/or buffered bike lane would decrease the distance from traffic from 13 feet to 10 feet. However, the increased friction from the bicycle lane buffer and parking lanes would slow traffic, further improving the pedestrian experience. Enhancements to sidewalk terrace space (additional landscaping, amenities, etc.) would also aid in the comfortability of pedestrians from vehicular traffic. In the long term, permanent protection for the bicycle lane (e.g. concrete curbs, planters, etc.) would also improve pedestrian safety and perceptions of safety along the corridor.
- **Pedestrian Crossings:** Parking protected bike lanes and curb-running bike lanes will reduce the feasibility of curb extensions into North Avenue at some intersections and mid-block crossings. Instead, this configuration would include curb extensions east/west to shorten the crossing distance of cross streets and pedestrian refuge islands between the bike lanes and traffic lanes to cross North Avenue. This placement of refuge islands directly adjacent to traffic lanes represents the **minimum possible crossing distance for pedestrians** and the most constrained traffic condition for motorists.
  - **Alternative: Increased refuge island widths** may be possible with curb reconstruction in select locations. Interactions with transit are also considerations affecting the design of refuge islands. These elements are discussed below.
- **Transit Experience:** Buses currently pull out of general traffic for boarding at several bus stops along North Avenue. The recommended design includes a configuration where buses continue to pull out of general traffic for boarding, representing minimal change to the existing transit experience. In the recommended configuration, buses would cross the protected bike lanes to board curbside.
  - **Alternative: In-Lane Boarding** may be a possibility following a traffic study. Rather than pulling out of general traffic, this alternative includes boarding platforms integrated with pedestrian refuge islands where passengers will board the bus while stopping traffic. This alternative may require curb reconstruction in some locations. Along the parking protected bike lanes, the pedestrian island width shown in the exhibit is sufficient for a bus platform; however, the refuge islands along the protected and/or buffered bike lanes would need to be increased. This alternative is acceptable to the BID.
- **Bicycle and Micro-mobility Experience:** North Avenue connects to two major entry points for the Oak Leaf Trail. The trail provides access to North Avenue from some of the City's highest to lowest income neighborhoods. The entry onto North Avenue from the trail is unappealing to cyclists; the experience changes from a fully grade-separated travel condition to an unprotected, mixed-traffic environment. Fully protected bicycle lanes are important for making cycling environments inclusive and accessible to all bicycle users. According to the National Association of City Transportation Officials (NACTO), "streets that are safe and comfortable for all ages and abilities bicycling are critical for urban mobility. This includes children, seniors, women, people riding bike

share, people of color, low-income riders, people with disabilities, people moving goods or cargo.” Fully protected and green painted bike lanes are recommended west of Farwell Avenue. This is further reinforced by the City of Milwaukee’s Complete Streets policy. The Complete Streets Health and Equity Report from 2021 states, “Complete Streets integrate people and place by making it safe, enjoyable, and convenient to walk, bike, take transit, drive, or simply experience our streets and public spaces – no matter one’s age or ability.

- **Alternative: Shared Lanes** may be an acceptable alternative to fully protected bicycle lanes in select locations. In shared lanes, general traffic lanes share the road with bicyclists. These shared lanes must be well marked for cyclists to use the whole lane, to discourage passing, and to provide a heightened sense of awareness and caution among motorists. Where shared lanes are included, the width of travel lanes should be decreased to the minimal feasible width to discourage passing and “dashing” movements where drivers commit lane violations to circumvent traffic. The BID recommends shared lanes where a sense of arrival is enhanced along the corridor to signal to motorists to slow down and increase vigilance, such as using a curbless or low-curb road design that turns North Avenue into a shared or managed street as described in Recommendation #2. The presence of turning lanes must be carefully studied where shared lanes are present to ensure safety for all roadway users as described in Recommendation #3. North Avenue between Farwell and Prospect is an opportunity for shared lanes.
- **Alternative: Partial Painting** of bike lanes is acceptable where conflict points are present, such as turning lane movements and buses crossing bike lanes. While green paint is preferable for the full length of bike lanes, this is not necessary and should not be prioritized over more impactful alternatives given limited resources. Painting bike lanes near all intersections remains highly desirable.

## Recommendation #2: Raised Intersections and Shared/Managed Streets

Several intersections along North Avenue represent complex conditions, such as angled streets, greater than 4 streets meeting, and restricted turning movements. At select intersections, enhanced roadway design is recommended to improve safety and slow travel speeds. These intersections include North/Cambridge and North/Farwell/Ivanhoe/Murray. Additionally, some segments of roadway are recommended as shared/managed streets with reduced or curbless designs to further improve safety and decrease travel speed. These street segments include North between Farwell and Prospect, Ivanhoe between Farwell and Prospect, Kenilworth between North and Farwell, and Bartlett north of North Ave. One preferred alternative for each of these locations is visualized in this document each for both interim and long term solutions; however, variations on these alternatives are acceptable and outlined below.

- **Raised Intersections:** Raised intersections increase the elevation of the roadway near, or at, the level of the sidewalks and curbs. A ramp transitions the roadway for motorists to signal them to reduce speeds as they feel the change in elevation. Often this is combined with a change in pavement treatment or roadway painting, described below. Raised intersections are recommended in the long-term at the intersections of North/Cambridge and North/Farwell/Ivanhoe/Murray during road reconstruction.
  - **Alternative: Painted Intersections:** Painted intersections are an acceptable alternative to raised intersections, but represent increased long term maintenance. Road paint on general traffic lanes will likely need restoration every 1-2 years. Roadway paint would need to be maintained by the BID.
  - **Alternative: Partial Painting** of intersections in select locations may be acceptable. This will still increase the overall sense of place and arrival at these intersections, signaling to motorists they have arrived in a pedestrian-oriented environment.

- **Alternative: Colored Concrete** may be a more cost effective solution for a treatment that colors the entire intersection and may be combined with one or more solutions outlined in Recommendation #2.
- **Alternative: Pavers** may also be acceptable for enhanced intersection treatments but should be used in combination with high visibility interventions that ensure motorists increase their awareness when entering the space.
- **Artistic Painted Crosswalks:** Artistic painted crosswalks are an acceptable alternative to other painting and raised applications. If artistic painted crosswalks are included in lieu of a raised, painted intersection, and/or colored concrete intersection, other pedestrian safety interventions including pedestrian refuge islands and/or curb extensions are essential. Artistic painted crosswalks may be more effective on the side streets connecting to North Avenue than crossing North Avenue itself, due to the need for continued maintenance. They are acceptable on North Avenue as an interim intervention before long-term safety improvements.
- **Shared Streets:** Shared streets are often low to no-curb roadway designs that encourage mixing of pedestrian, motorist, and active transportation traffic. A shared street design may control the level of freedom between modes of transportation by controlling crossing locations and heightening motorist awareness. Signage, monument elements, and other roadway design features can all contribute to a successful shared street. The space designated for motor vehicle travel should be minimized in shared street applications.
- **Managed Streets:** Managed streets are similar to shared streets but are managed to restrict use at different times of day, year, and events. Managed streets are easily closed to vehicle traffic for events or restricted for local trips only. Managed streets function as a destination rather than a conduit. Vehicle speeds on managed streets should not exceed 5-10 mph, similar to a parking lot. Enhanced pavement such as pavers or colored concrete are highly desirable in managed street applications to emphasize their appropriateness as a place for pedestrians.
- **Closed Streets:** Ivanhoe Place is recommended for partial closure northwest of the alley – Black Cat Alley. Bartlett Avenue is also recommended for closure north of North Avenue. The design is like a managed street but with elements such as planters, bollards, or similar barriers preventing vehicular traffic. Bicycle traffic may be allowed but controlled and clearly marked on closed streets. Curb reconstruction is likely necessary to close Ivanhoe Place in the recommended location due to the existing vehicular access onto Prospect Avenue being insufficient width. The recommended parking configuration may be subject to change as well.

### Recommendation #3: Traffic Studies and Curb Reconstruction Opportunities

The alternatives envisioned in this Vision document assume minimal changes to the existing traffic configuration. Several opportunities are presented below that may become possible as the result of a different traffic studies. Further, the alternatives envisioned assume that minimal curb reconstruction is feasible, therefore restricting the recommendations to the existing 50-foot curb-to-curb roadway width for most of the corridor. The alternatives outlined below are acceptable to the BID for future road reconstruction along North Avenue, pending further traffic analysis. In many cases, these alternatives are preferred to the recommended alternative due to the increased opportunities for pedestrian safety.

- **Parking Protected Bike Lanes on Both Sides of North Avenue:** The existing 50-foot curb-to-curb does not accommodate parking protected bike lanes on both sides of North Avenue based on best practice roadway design. The BID would support further study of curb reconfiguration to allow for parking protected bike lanes on both sides of North Avenue, increasing the safety of bike and pedestrian facilities while increasing the amount of parking by increasing the curb-to-curb width an additional 3-5 feet to achieve best practice roadway design.

- **In-lane Transit Boarding:** The recommended configuration maintains the bus pull-offs for transit boarding at bus stops. The BID would support further study of traffic to assess the feasibility of in-lane transit boarding to eliminate the bus pull-offs and reduce vehicle-bicycle conflicts. This alternative would extend the recommended pedestrian refuge islands for transit platforms. This alternative would require an additional 3-5 feet of curb-to-curb width to fit the bike lane behind the transit platform and pedestrian refuge island.
  - **Alternative: Shared bus-bike lane boarding** may be appropriate where the transit boarding area remains at the curb. The bike lane would merge with the bus lane for the length of the bus stop and provide an opportunity for curb extension at the intersection, increasing the size of the sidewalk. This is an acceptable alternative to the BID.
- **Turn Lane Removal:** Traffic studies may reveal an opportunity remove one or more dedicated turning lanes from the corridor. The envisioned recommendations include the **removal of the dedicated left turn lane from Prospect Ave onto North Ave** consistent with the recommendations of Milwaukee DPW's Rapid Implementation Plan. Elimination of additional turning lanes may be feasible; however, the retention of some turning lanes is also preferred by the BID in select locations.
  - **Alternative: Removing turning lanes between Farwell and Prospect** is a desirable alternative if a traffic study allows. This will increase the available curb-to-curb width along North Avenue for this segment of roadway and may accommodate a variety of pedestrian and/or bicycle improvements including wider sidewalks, dedicated transit boarding stations, parking protected bike lanes, narrower shared roadways, and/or increased landscaping.
  - **Alternative: Retaining (not removing) the left turn lane from North onto Murray** is preferred by the BID even if it is feasible to remove. This turning lane provides a stress-free access onto Murray Street which contains a large amount of accessible parking that contributes positively to the corridor overall.
  - **Alternative: Removing turning lanes from North onto Oakland in either/both directions** may represent an opportunity for increased sidewalk width along North Avenue where the sidewalk is narrow and contains a bus stop. If parking protected bike lanes are included on the south side of the street (rather than the north side as visualized in this document), there may also be an opportunity for more parking spaces.